

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

McAllister Machine Inc

Maine Manufacturing Extension Partnership

McAllister Machine, Inc. Improves Efficiency with Lean Workplace Organization

Client Profile:

McAllister Machine is a family owned and operated precision manufacturing machine shop. They have been in business for over 30 years and support a niche customer market that demands quick turnarounds and high quality. Their core competencies are in CNC milling and turning. The Saco, Maine facility currently employs 15 people.□

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Situation:

McAllister Machine was experiencing a downturn in their sales. Customers were delaying orders, and the company was forced to layoff a significant portion of their workforce. McAllister Machine recognized that this slower manufacturing period provided a good opportunity to put Lean workplace organizational principles into practice to help reduce lead time and wastes associated with searching and rework. The company contacted the Maine Manufacturing Extension Partnership (Maine MEP), a NIST MEP network affiliate, for help.

Solution:

Maine MEP met with McAllister Machine, understood their challenges, and proposed a Lean manufacturing training program to train employees in Lean awareness, Value Stream Mapping (VSM), and performing Kaizen events. A generic job order was selected for the VSM to highlight wastes in the sawing/turning/milling/deburring process steps, and the Kaizen events focused on improvement activities identified during the VSM process steps. The training was made flexible to accommodate shop orders. The VSM identified first pass yield improvement opportunities of 150 percent in sawing and deburring. The Kaizen events focused on 5S (workplace organization - Sort, Set in Order, Shine, Standardize, Sustain) events in the raw material, sawing, order staging, and tool cabinet areas. 5S of the raw stock area salvaged \$2,000 in material. A standardized process was developed for sawing and order prep which led to a 60 percent improvement in first pass yield after sawing. A planned computer based custom tool search program would reduce setup time by 20 percent. The most significant outcome of the Kaizen activities was the opportunity to reduce the wasted effort of hunting for tools.

Results:

* Reduced costs by \$2,000.

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Projected:

- * Reduce setup time by 20 percent.
- * Reduce wasted time by 50 percent.
- * Anticipated savings of \$30,000.

Testimonial:

"The Lean training that we received has helped improve our production. We now have a cleaner, more organized work area. Our work force has seen the benefit and continues to maintain and spread what we have learned into new areas of the shop. Business has picked up over the past several months allowing us to maintain profitability. We will continue to use the Lean practices as our business grows."

Jim McAllister, President